

Birds recorded during visits to Ladakh, India, from 1994 to 1997

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Four ornithological visits were made to Ladakh, India from 1994 to 1997, with the principal aim of studying the small breeding population of Black-necked Crane *Grus nigricollis*. A total of 168 species was recorded, including eight new for Ladakh: Pallid Scops Owl *Otus brucei*, Dunlin *Calidris alpina*, Parasitic Jaeger *Stercorarius parasiticus*, Greater Spotted Eagle *Aquila clanga*, Cattle Egret *Bubulcus ibis*, Black Drongo *Dicrurus macrocercus*, Rusty-tailed Flycatcher *Muscicapa ruficauda* and Dark-sided Flycatcher *M. sibirica*. Common Kingfisher *Alcedo atthis*, Laughing Dove *Streptopelia senegalensis* and Eurasian Golden Oriole *Oriolus oriolus* were recorded at considerably higher elevations than previously reported in the Indian subcontinent. The breeding of Hume's Groundpecker *Pseudopodoces humilis* was confirmed for Ladakh. Observations of 42 other species of interest are detailed and a complete list of species recorded, including information on abundance, status, location and period is appended.

INTRODUCTION

Ladakh, in India, at an average altitude of over 4,000 m above sea level, is located between two major mountain ranges, the Himalayas to the south and the Karakoram to the north. Kargil, located at 2,700 m in the extreme west, is the lowest area in Ladakh, whereas the highest peaks rise to over 7,000 m.

The great Himalayan massif dominates the south-western/western topography of Ladakh with its mostly rugged, deep and steep terrain. The eastern and north-eastern territories of the region, which form the most western extension of the Tibetan Plateau, are dominated by dry, desert-like, high-altitude plains, soft rolling hills and wider valleys. In the characteristically high-altitude environment atmospheric conditions can change rapidly. In midsummer temperatures may easily drop from +30°C to -20°C on the upper plateaus as strong winds make their sudden appearance, whereas winter temperatures can reach as low as -45°C. Therefore, Ladakh provides difficult environmental and climatic conditions to its inhabitants. Once covered with an extensive lake system, the region today shows only some vestiges of wetlands, primarily located in the Rupchu and Changtang regions of eastern Ladakh, including Pagong-Tso, Tsomorari, Tso-Kar, Yoye-Tso and the marshes of Hanle, Chumur and Chushul. Ladakh's sparse human population is predominantly concentrated along the Indus.

The results of four ornithological journeys, conducted between 1994 and 1997 in Ladakh, and covering predominantly its central and eastern territories, are provided. The 1995 and 1996, but especially the 1997 visits, concentrated principally on the study of the status and threats to the vulnerable Black-necked Crane *Grus nigricollis*, for which Ladakh represents the only known breeding ground within Indian territories. During these investigations, a total of 168 different bird species was recorded, of which eight had not been reported earlier for the Ladakh region (Pfister 1997a). The more interesting observations are described in detail, followed by a comprehensive,

annotated checklist that provides an overview of all the species encountered during the four surveys.

LADAKH'S AVIFAUNA

Ladakh is located on the border between the Palearctic and the Indo-Malayan zoogeographic zones, and is strongly influenced by typical species from both areas (Fig. 1). Further, characteristic Tibetan birds extend their ranges well into eastern Ladakh; and being the last or first accessible place during spring and autumn migration, it is staged by important aggregations of birds while crossing the lofty Himalayan range. In addition, its dry sunny summer months attract many summer visitors and breeders. These diverse ornithological



Figure 1. Map of Ladakh

influences make Ladakh a melting pot of bird movements, resulting in more than 300 species recorded in the region so far (Pfister 1997a).

Due to its strategic geographical location, four groups of birds can be identified, depending upon their time of occurrence within Ladakh limits:

- *The resident birds*, well adapted to the harsh climate, spending the hostile winter months in lower valleys and mostly moving in summer to high elevations for breeding.
- *Birds on migration*, comprising the biggest and most diverse group, transit Ladakh during early spring (late March and April) and autumn (September to November). They halt for brief periods of time, feeding and resting mainly along the Indus, in and around the high altitude wetlands and their adjoining prairies.
- The *summer visitors* reach Ladakh during April/May, mostly for breeding, and they migrate from the Indian plains or the Tibetan plateau. Their main return migration in September and October extends into the onset of the cold season.
- The *wintering birds*, represent the smallest group of visitors. They reach Ladakh during October or November, flying in from their northern Palearctic breeding grounds, and remaining near villages and rivers in the lower valleys before returning in April or May.

METHODS

Accessible territories, such as the areas of Kargil, Rizong and Phyang along the Indus, but mainly from Leh eastwards to Tikse and Chumatang to Loma; the valley to Rumbak and Ganda-La; the Nubra and Tangtse valley; and the Rupchu and Changtang territories in the east, were visited during the regular surveys from 1994 to 1997. The four trips were organized during the summer months between May and October. The average stay in Ladakh was four weeks, except for summer 1997, when a study for an uninterrupted period of five months from May until October was conducted.

Birds were primarily recorded by employing the 'line transect' method, either from the vehicle or while hiking, apart from the occasions when intensive research was conducted while camping at the respective sites.

RESULTS

During the four surveys, a total of 168 species was encountered, accounting for over 50% of species known from the region. Eight new species for Ladakh were recorded: Pallid Scops Owl *Otus brucei*, Dunlin *Calidris alpina*, Parasitic Jaeger *Stercorarius parasiticus*, Greater Spotted Eagle *Aquila clanga*, Cattle Egret *Bubulcus ibis*, Black Drongo *Dicrurus macrocercus*, Rusty-tailed Flycatcher *Muscicapa ruficauda* and Dark-sided Flycatcher *M. sibirica*.

The observations of Black Drongo, Rusty-tailed Flycatcher, Dark-sided Flycatcher and Pallid Scops Owl signify an extension of those species' known ranges, whereas sightings of Common Kingfisher *Alcedo atthis* at 4,340 m, Laughing Dove *Streptopelia senegalensis* at 4,350 m and Eurasian Golden Oriole *Oriolus oriolus* at

4,450 m, increased those species' altitudinal ranges to considerably higher elevations than previously reported. In addition, documentation of breeding Hume's Groundpecker *Pseudopodoces humilis* extended the species's known breeding range.

SIGNIFICANT RECORDS

The more significant and interesting notes on birds are listed below. The complete list of species recorded within Ladakh, including information on abundance, status, location and period is presented in the Appendix. The English and scientific bird names follow Inskipp *et al.* (1996).

HIMALAYAN SNOWCOCK *Tetraogallus himalayensis*

While camping above Jurutse in the Rumbak valley (4,400 m) at the end of May 1996, the territorial calls of the Himalayan Snowcock dominated the early morning scene. Scattered presence was noted throughout the upper part of the valley towards Ganda-La. About four territories were defined. A party of four birds was observed on the south side of the Ladakh range, below Chang-La at 5,000 m on a rocky slope on 7 June 1996.

TIBETAN SNOWCOCK *Tetraogallus tibetanus*

One was seen at the northern sparsely vegetated slope just below Taglang-La at 5,500 m on 13 June 1997. Later that year, on 10 October, a group of 12 was seen, feeding on grass seeds in a ravine high above the Hanle plains at 4,900 m. Based on available information, it is suggested that the distribution of the Tibetan Snowcock in Ladakh extends westwards to the area of Taglang-La and Chang-La, whereas further west is occupied by the Himalayan Snowcock.

TIBETAN PARTRIDGE *Perdix hodgsoniae*

This uncommon resident species was found in the far eastern semi-dry, *Caragana* dotted valley bottoms. On 6 June 1997 a pair was watched in their territory established near Sumdo (4,420 m) within a *Caragana* covered gully. This location represented a western extension of its range in Ladakh. On 15 July 1997 the breeding territory of another pair in a small valley south of Hanle (4,430 m) was detected. A cock, positioned on an elevated rock, was watched vigorously defending its territory. Further up the same valley another four birds were counted. On returning to the initial location, the original male appeared again, 'guiding' me away from a *Caragana* clump. When the location was inspected later, some pure white eggshells were found, but the chicks had already left.

The birds were also noted in the lower side-valley running from the western Hanle plains towards Chumur. Here, in early August 1997, the partridge was surprisingly common, and various pairs were watched with four to six chicks trailing behind. Once, a whole clan of six adults and 15 chicks was counted moving uphill and disappearing amongst boulders at 4,650 m.

COMMON QUAIL *Coturnix coturnix*

A very brief view of one bird on 26 May 1996, amongst the buckthorn *Hippophae* covered Indus riverbanks near Shey (3,600 m), represented the only sighting.

BAR-HEADED GOOSE *Anser indicus*

This near-threatened species is a common summer visitor to the eastern high altitude fresh and brackish water lakes and the upper part of the Indus river as far west as Leh. Colonies, containing fewer than 50 breeding pairs each, were observed in the smaller lakes in the Rupchu and Changtang areas, including Tso-Kar, Startsapuk-Tso, Lam-Tso, Tsigul-Tso etc., located between 4,000 and 4,500 m. However, the most important breeding area of this attractive goose is located in the Tsomoriri, where literally hundreds of pairs rear their chicks on a large island in the northern part, as well as on various small islands near the southern edge of the lake. After fledging, many young birds with their parents were observed along the upper Indus from Mahe eastwards, mainly from the end of August until the first half of October, when they started to migrate south.

GADWALL *Anas strepera*

This species is not commonly seen in Ladakh. The two records relate to birds on their southerly migration from 25 September 1997 when five individuals were watched in Yoye-Tso (4,700 m) and another three in the Indus near Nyoma (4,110 m) by 12 October of the same year.

RED-CRESTED POCHARD *Rhodonessa rufina*

Sightings of this species were not frequent. However, three birds (one duck and two drakes) were observed throughout summer 1997 in a pond west of Leh airport along the Srinagar road (3,450 m). Earlier, on 12 June 1996, one drake in eclipse was recorded in the lower part of the Hanle valley (4,180 m) in a pond formed by the Hanle river.

EURASIAN WRYNECK *Jynx torquilla*

One was watched on 21 September 1997 near the southern edge of the Tso-Kar plains at 4,610 m, when it was feeding around rocks at the edge of the grassland.

COMMON KINGFISHER *Alcedo atthis*

Apart from regular sightings of single birds in the Nubra valley (3,200 m) in early September 1997 and near the Indus in the Shey area (3,550 m) in mid-September 1997, one was observed in mid-June 1997 below the Hanle monastery (4,340 m). In July it moved about 600 m to the west and was joined by a second bird in August; both were still around in mid-October when the last survey of the season was conducted. This observation considerably exceeds the highest altitude of 3,100 m previously recorded for this species in the Indian subcontinent (Grimmett *et al.* 1998).

EURASIAN CUCKOO *Cuculus canorus*

On 27 June 1997 a male was observed hunting insects in the grassy area of the eastern Hanle plains (4,340 m), and on 3 August 1997 a female was seen further towards the west in Raar (4,370 m). On 6 September 1997 another female was recorded in an orchard outside Hundar in the Nubra valley (3,100 m).

ASIAN KOEL *Eudynamis scolopacea*

A single male was watched on 26 June 1997 in the dry sandy slopes below the Hanle monastery (4,350 m). The exhausted bird did not fly off when approached but scrambled away to seek cover amongst the rocks.

PALLID SCOPS OWL *Otus brucei*

After an overnight snow shower on 8 October 1997, a pair was observed roosting in the branches of the (only) willow *Salix* tree below Hanle monastery, at 4,340 m. One bird huddled close to the main trunk whilst the second bird, half covered by the tree's yellowing snow-laden leaves, enjoyed the early morning sun. A new sighting for Ladakh, extending the species's known distribution range further towards the north-east and considerably increasing its known altitudinal range (Pfister 1999a).

EURASIAN EAGLE OWL *Bubo bubo*

Three were recorded amongst the steep rocks near Sumdo (4,420 m) between June and September 1997, of which one pair inhabited a very old nesting-cum-roosting place, as examination of the dropping covered rocks and widespread pellets revealed. A second location near Lalpari (4,280 m), visited from June to August 1997, produced a breeding pair raising two chicks. Further, an old roost was investigated behind the Hanle monastery (4,360 m) in June 1997 – it remained empty until September, when a single bird reoccupied the locality.

LITTLE OWL *Athene noctua*

Two subspecies, Hutton's Owlet *A. n. bactriana* and Tibetan Owlet *A. n. ludlowi*, were observed. Hutton's Owlet was first found in September 1994, when one was observed at the southern end of the Tso-Kar plains (4,610 m). In July 1996 and in summer 1997 what was probably the same bird was found in the same area. Others were sighted in June 1995, July 1996 and summer 1997, along the northern and eastern rocky slopes of the Tso-Kar plains, in the upper Indus Valley (4,000 m), and on 7 June 1996 near the Chang-La pass at 5,100 m. In June 1995, the Tibetan Owlet was noted at Tso-Kar. About the same size as *bactriana*, but appearing bulkier, with a darker chocolate-brown back, conspicuously spotted with white. The underparts were dirtier white, less heavily streaked with brown, with a broad dark grey-brown wash across the upper-breast. In 1996 and 1997, *ludlowi* was observed interbreeding with *bactriana* in the southern part of Tso-Kar; in the latter year three chicks were raised by the mixed pair (Pfister 1999a).

SNOW PIGEON *Columba leuconota*

This resident species was most commonly observed in the upper hills of central and western Ladakh, but was less common further east. On 23 and 24 September 1997 a strange pigeon was noted near Sumdo (4,420 m), which looked intermediate between Hill Pigeon *Columba rupestris* and Snow Pigeon. It did not consort with Hill Pigeons, which were found in considerable flocks throughout the area, but stayed on its own. The eyes and legs were red, the head to upper-neck was uniform dark grey, and the lower neck and underparts were dirty white (darker beige, creamy), whereas the mantle, scapulars and rump appeared grey. The grey secondaries showed three white-fringed dark wing-bars, the primaries were dark grey and the tail was white with the broad black terminal bar, typical for both species. It was presumed to be a hybrid.

EUROPEAN TURTLE DOVE *Streptopelia turtur*

A single bird was found roosting in a poplar grove in Hundar/Nubra valley (3,100 m) on 9 September 1997.

LAUGHING DOVE *Streptopelia senegalensis*

A single bird was recorded on 3 October 1997 in the small hamlet below the Hanle monastery (4,350 m), feeding amongst Hill Pigeons. It remained in the vicinity for five more days. This may represent one of the highest altitudinal records of this lowland bird.

BLACK-NECKED CRANE *Grus nigricollis*

Faithful to their traditional nesting places in the eastern wetlands of Changtang, this summer visitor was observed in mid-June 1995 in Lalpari (4,280 m) (one breeding pair) and in the Hanle plains (4,350 m) (two pairs fighting for territories, plus a loner). In June 1996 the area of Chushul (4,450 m) produced eight cranes (including one breeding pair), Tangtse valley (Harong, 4,420 m) one breeding pair, Lalpari one breeding pair, the Hanle plains six birds (three breeding pairs) and Tso-Kar (4,610 m) three birds (including one breeding pair). During the period from June to October 1997, while conducting primarily field research to study the breeding ecology and conservation status of *Grus nigricollis*, 38 birds were recorded in the eastern region of Changtang, of which 24 were breeding (12 nests, 24 eggs incubated, 13 eggs hatched, and nine chicks fledged, Pfister 1995, 1997b, 1998).

BAILLON'S CRAKE *Porzana pusilla*

The first autumn migrants were recorded on 22 August 1997, when two juveniles were watched in the swampy area of the Tso-Kar plains (4,610 m). Two adults appeared during the second half of September 1997 in Tso-Kar, another two were observed on 27-28 September 1997 in Lalpari (4,280 m), and a dead juvenile was recovered from the same location.

TIBETAN SANDGROUSE *Syrrhaptes tibetanus*

Flocks of 6 to 15 birds were frequently observed in the northern part of the Tso-Kar plains (4,620 m) during every visit (September 1994, June 1995, June 1996 and June to September 1997). Singles periodically flew over the camp in the south of the area. On the Hanle plain (4,350 m) it was recorded occasionally, mainly from July to October 1997, when birds came into roost. Every day 11-13 birds flew north-east into the Hanle valley, between 17h00 and 17h10. On 30 July 1997, in the western Hanle area a flock of over 40 was noted feeding at midday but they flew off west after being chased by a dog. The species was also seen at Chushul (4,250 m) in June 1996 and in mid-August 1997 in Lam-Tso/Chumur (4,370 m), with a peak of 18 feeding on 17 August.

BLACK-TAILED GODWIT *Limosa limosa*

This uncommon migrant was first recorded in Tso-Kar (4,610 m) on 21 August 1997, when one was noted feeding on the shore of Startsapuk-Tso. Two more were observed in the same area from 19-22 September.

DUNLIN *Calidris alpina*

A single juvenile fed from 26-28 September 1997 along the marshy side-arm of Hanle river in Lalpari (4,280 m), frequently associating with Common Redshanks

Tringa totanus. This represents the first record of the species for Ladakh.

CURLEW SANDPIPER *Calidris ferruginea*

A single, shy and wary individual was watched on 19-20 August 1997 at Lalpari (4,280 m).

IBISBILL *Ibidorhyncha struthersii*

At the end of June 1995, a pair was found breeding on a gravel bank in the Indus, below the iron bridge at Shey (3,550 m), and they raised two chicks. In June/July 1996, a pair was recorded in the same area, but no offspring were seen. In addition, an extra bird (last year's young?) was recorded in their territory. From June to October 1997 a pair was recorded breeding in the same location. In September one fledged juvenile was observed roosting on the bank with the adults. The status of the species in Ladakh still needs confirmation, some sources claim that it has been observed in winter along the Indus.

COLLARED PRATINCOLE *Glareola pratincola*

Two birds were sighted roosting on a gravel-bank in the Indus below the Shey iron bridge (3,550 m) on 25 August 1997. An uncommon autumn migrant.

PARASITIC JAEGER *Stercorarius parasiticus*

On 28 June 1995, at the north-west corner of Tsomoriri (4,550 m), one was observed chasing a Brown-headed Gull *Larus brunnicephalus*. It was a pale morph individual; the pointed wings, dark chest-band on the pale underparts, and the elongated, pointed central tail-feathers were conspicuous. It called a loud *crae-crae-crae* while following the slightly smaller gull. An unexpected addition to the Ladakh list.

WHITE-WINGED TERN *Chlidonias leucopterus*

One was seen on 23 June 1995, an overcast, rainy day, while scanning the shores of Startsapuk-Tso/Tso-Kar (4,610 m).

EURASIAN MARSH HARRIER *Circus aeruginosus*

Though mainly considered an autumn passage migrant, one was observed hunting along the marshes of Lhungparma in the Tangtse Valley (4,630 m) on 7 June 1996. Good numbers were present in the Tso-Kar plains in September 1994. In 1997, during August and September this species was regularly seen in the Tso-Kar plains, mainly around Startsapuk-Tso; in the early morning of 22 August, 26 birds (mixed juveniles and adults) were counted roosting or hunting along and over Startsapuk-Tso. A survey in the Nubra valley during the first two weeks of September 1997 produced regular sightings of mainly single birds.

EURASIAN SPARROWHAWK *Accipiter nisus*

In the evening of 5 June 1996 a male flew into the willow-grove below the Rizong monastery (3,320 m) to roost. A juvenile was seen resting on a rock high above Hanle (4,900 m) on 6 October 1997.

[UPLAND BUZZARD *Buteo hemilasius*

A dark phase bird encountered on 10 June 1997 at Tso-Kar (4,610 m) was identified as this species (but see Naoroji and Forsman, this issue). A further indication of the presence of the species was found in a 13 cm long pellet of a Eurasian Eagle Owl *Bubo bubo* that was

collected at the latter's nest-site in Lalpari (4,280 m). It contained (in addition to a large number of fish bones and some 5-10 mm pieces of gravel) a full leg of a large raptor! The tibia, tarsus and golden-yellow, finely scaled foot, the sharp strong blackish claws bent inwards, were fully preserved in one piece, although the leg was folded at the 'knee'. The front of the tarsus was dark brown (with rufous fringes) and whitish feathered for its full length, whereas the back showed a wax-yellow to whitish-yellow covering of scales. The same pellet also contained a complete, 9.7 cm long, ulna, a vertebra almost 4 cm long, and many dark brown and pale body feathers. After analysing these remains it was concluded that the prey item had been a buzzard, most likely, given the leg colour, an Upland Buzzard.]

LONG-LEGGED BUZZARD *Buteo rufinus*

While camping in Lalpari (4,280 m) in mid-June and July 1997, one adult was regularly seen in the area. On 2 August another bird was encountered 20 km south of Lalpari, at the eastern edge of the Hanle plains, and it was still there a few days later.

GREATER SPOTTED EAGLE *Aquila clanga*

While surveying the western area of the Hanle plains on 30 September 1997, a very dark, mid-sized eagle was observed roosting on a rock at Raar (4,370 m). Subsequent examination of photographs established that it was a Greater Spotted Eagle. This represents a first sighting of this passage migrant for Ladakh.

EURASIAN HOBBY *Falco subbuteo*

The yearly surveys of the Shey marshland (3,600 m) from 1994 to 1997 produced regular sightings of this summer visitor. The birds were watched mainly hunting dragonflies over the marsh and devouring them in flight. Additionally, it was recorded on 5 June 1996 below Rizong monastery (3,200 m).

LAGGAR FALCON *Falco jugger*/BARBARY FALCON *F. peregrinus babylonicus*

One was noted in the early morning of 29 July 1997, roosting on a rock-top near the Hanle monastery (4,360 m).

PEREGRINE FALCON *Falco peregrinus*

On 28 September 1997, a single, apparently of the subspecies *F. p. calidus*, was watched at Lalpari (4,280 m), cruising over the marshes and hunting Garganey *Anas querquedula*. There have been only a few previous records of this migrant for Ladakh.

GREAT CRESTED GREBE *Podiceps cristatus*

Startsapuk-Tso (4,610 m) is probably the highest nesting site of this rather uncommon summer visitor. Breeding pairs were observed annually from 1994 to 1997 on the lake, and a survey in the last year produced 26 nests. Further locations with regular nesting records were Tsomoriri (4,550 m) covered in summer 1994-1996, and Yoye-Tso (4,700 m) surveyed in June 1995 and September 1997.

CATTLE EGRET *Bubulcus ibis*

A single bird in breeding plumage was seen at Tsomoriri, below Korzak village (4,550 m) on 27 June 1995 in the small river delta. The obviously tired egret was mobbed

by Brown-headed Gulls *Larus brunnicephalus* for about two hours until it took off in a northerly direction, following the lake edge. This observation represents a first sighting of the species in Ladakh.

BLACK STORK *Ciconia nigra*

A subadult remained from 21 to 25 June 1996 in the grassy southern part of the Tso-Kar plains (4,610 m).

HUME'S GROUNDPECKER *Pseudopodoces humilis*

The species was first recorded on 17 June 96 above Hanle, in the area called Kalak Turtar (4,950 m), when a pair was recorded feeding along a sandy slope. Later in the day, one was found digging out larvae from Kiang *Equus kiang* droppings. The bird did not swallow them but carried them down a slope, presumably to a hidden nest. On 25 June 1996, a pair was watched defending territory against an intruder, some hours' walk south above the Tso-Kar basin (5,470 m). At Chumur (4,450 m) a family with five fledged young was watched on 14 and 15 August 1997 and, three days later, another adult was seen feeding three fledged young, about one hour's walk from the first location. These records confirm that the species breeds in Ladakh.

EURASIAN GOLDEN ORIOLE *Oriolus oriolus*

This summer visitor is quite commonly encountered in the lower tree-covered valley bottoms of Ladakh, along the Indus and its tributaries up to Chumatang (4,000 m), as well as within the accessible locations in the Nubra valley from Hundar up to Panamik (3,100-3,350 m). The most surprising observation, however, was of a female, in *Caragana* bushes in the valley between Tsomoriri south/Nurbo Sumdo and Chumur at 4,450 m. This just exceeds the highest altitude previously recorded in the Indian subcontinent (Grimmett *et al.* 1998).

BLACK DRONGO *Dicrurus macrocercus*

One was seen at Mahe bridge (checkpost, 4,080 m) on 18 July 1997, and an exhausted individual was watched on the 4 October 1997 in the western part of the Hanle plains (4,370 m).

WHITE-THROATED DIPPER *Cinclus cinclus*

This local migrant species was seen quite commonly in fast-flowing mountain streams, mainly above 4,000 m, for instance at Rumbak/Ganad-La, Tsomoriri, the upper Indus valley and near Sumdo. An individual of the *sordidus* morph was seen in a side-valley on the west side of Tsomoriri (4,550 m) at the end of June 1995, where it was breeding with a normally coloured dipper in a water-mill. A second *sordidus* individual was recorded at Sumdo (4,420 m) from June to September 1997 (Pfister 1999b).

EURASIAN BLACKBIRD *Turdus merula*

One female was seen on 1 and 2 October 1997 below Hanle monastery (4,350 m).

SPOTTED FLYCATCHER *Muscicapa striata*

This uncommon summer migrant was noticed twice in the Nubra valley: in a willow/poplar plantation near Hundar (3,100 m), and in a garden in Panamik (3,300 m).

DARK-SIDED FLYCATCHER *Muscicapa sibirica*

One was found hunting insects over the tributary river to the Indus at Mahe bridge (4,080 m). The first record of the species for Ladakh.

RUSTY-TAILED FLYCATCHER *Muscicapa ruficauda*

One was observed on 3 June 1996 in an open forested patch below Zinchan (3,450 m) near the trail descending from Rumbak. The first sighting for Ladakh.

GRANDALA *Grandala coelicolor*

A male was noted on 28 May 1996 in the narrow humid valley leading from Zinchan to Rumbak at 3,700 m. It was extremely shy and vanished without allowing a close approach. Probably a first sighting, yet much still needs to be discovered about the status of the species in Ladakh.

WALLCREEPER *Tichodroma muraria*

This species was recorded on 29 May 1996 below Rumbak (4,050 m) and again a few days later (5 June) while surveying the valley from Rizong to Ulle at 3,980 m. During 1997, birds were noticed in the Nubra valley, above Hundar (3,400 m) on 5 September, and above Panamik (3,450 m) on 11 September. A week later a female was watched above Sumdo (4,450 m).

TIBETAN LARK *Melanocorypha maxima*

This species was found breeding in the bogs of the Hanle plains (4,360 m) during summer 1997. Active nests were observed in late June; incubation was mainly attended to by the female. By mid-August 1997, flocks of up to 30 were observed in the plains near Chumur (4,450 m). By the end of September 1997 none was to be found. This suggests that the species is a summer visitor, especially as none was encountered further in the lower valleys further north and west.

PLAIN-BACKED SNOWFINCH *Pyrgilauda blanfordi*

These birds were not uncommonly seen in the sandy southern slopes in the Tso-Kar plains (4,610 m) in early September 1994. At the end of June 1995 and in June 1996 the species was found in the same area; in the latter year it was twice found breeding in pika *Ochotona* burrows, and three young were fledged in early July. The resident status of this species still needs to be confirmed.

FOREST WAGTAIL *Dendronanthus indicus*

One was watched from 8-11 June 1997, feeding near the spring on the southern edge of Startsapuk-Tso (4,610 m). An unusual record, because this species usually migrates through the eastern Himalaya to reach its northern breeding grounds.

WATER PIPIT *Anthus spinoletta*

One, in winter plumage, was observed in the marshy spring at the north end of Tso-Kar (4,610 m) on 21 September 1994.

ALPINE ACCENTOR *Prunella collaris*

This resident species of extreme altitude was found in small groups (3 to 5 individuals) at the Kardung-La

(5,700 m) feeding amongst boulders during a snow shower in early September 1997.

MONGOLIAN FINCH *Rhodopechys mongolica*

In late May 1996 some were seen in the stony plains on the Indus valley slopes west of Leh. In late June 1997 small flocks were noted on the sandy slopes west of Loma (4,130 m) and, subsequently, individuals were seen during July and August in Hanle (4,350 m). The August observations included sightings of fledged chicks still being fed by the parents. This confirms the suggestion that the species breeds in Ladakh (Harrop 1988).

RED-FRONTED ROSEFINCH *Carpodacus puniceus*

Chushul (4,450 m) produced sightings of the species on 11 June 1996 near Tsigul-Tso in open *Caragana* interspersed pasture land next to sandy dry slopes. The following day more birds were watched amongst *Caragana* thickets in the dry valley leading south from Chushul towards the Indus valley. On the 19 June 1996 the species was again found in the northern, *Caragana* covered, dry valley part of the Tsomoriri area (4,580 m) feeding on *Caragana* flowers. In June 1997 a pair was studied while breeding in a *Caragana* thicket in Lalpari (4,280 m) raising four chicks.

LITTLE BUNTING *Emberiza pusilla*

On 27 and 28 June 1997, one was watched amongst the bogs in southern Hanle/Shado Bug (4,340 m). An unusual record because this species usually migrates through the central and eastern Himalayas.

RED-HEADED BUNTING *Emberiza bruniceps*

This uncommon passage migrant was added to the list, when one subadult was observed from 4 to 6 October 1997 near the hamlet below the Hanle monastery (4,350 m).

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Appendix. Bird sightings in Ladakh 1994-1997

Name	Scientific Name	Status	Habitat	1994	1995	1996	1996	1997	1997	1997	1997	1997
				Sep.	Jun.	May	Jun.	Jun.	Jul.	Aug.	Sep.	Oct.
				AD	ABDEGI	AKL	C-EGM-O	A-E	C-E	AD-G	ACDHI	BE
GALLIFORMES												
Phasianidae												
Himalayan Snowcock	<i>Tetraogallus himalayensis</i>	RES	RSS			**	**					
Tibetan Snowcock	<i>Tetraogallus tibetanus</i>	RES	RSS					*				**
Chukar	<i>Alectoris chukar</i>	RES	RSS	***		***	***	***		***	***	***
Tibetan Partridge	<i>Perdix hodgsoniae</i>	RES	RSS, AF					**	**	**	**	
Common Quail	<i>Coturnix coturnix</i>	unknown	BU			*						
ANSERIFORMES												
Anatidae												
Bar-headed Goose	<i>Anser indicus</i>	SUVI-br	LA, RI	***	***		***	***	***	***	****	***
Ruddy Shelduck	<i>Tadorna ferruginea</i>	SUVI-br	LA, RI	****	***		***	****	****	***	****	***
Gadwall	<i>Anas strepera</i>	PAMI, SUVI-nb	LA, RI	X							**	**
Eurasian Wigeon	<i>Anas penelope</i>	PAMI, SUVI-nb	LA, RI				X				***	
Mallard	<i>Anas platyrhynchos</i>	PAMI, SUVI-nb	LA, RI		*	**	X					
Northern Shoveler	<i>Anas clypeata</i>	PAMI, SUVI-nb	LA, RI				X			**	**	***
Northern Pintail	<i>Anas acuta</i>	PAMI, SUVI-nb	LA, RI	X	X	X	X		**	***	****	
Garganey	<i>Anas querquedula</i>	PAMI, SUVI-nb	LA, RI, MA			**	***		**	****	****	***
Red-crested Pochard	<i>Rhodonessa rufina</i>	SUVI-nb, PAMI	LA, RI				**	**		**	**	
Common Pochard	<i>Aythya ferina</i>	PAMI, SUVI-nb	LA, RI				X				**	
Tufted Duck	<i>Aythya fuligula</i>	PAMI, SUVI-nb	LA, RI				X					
Common Merganser	<i>Mergus merganser</i>	SUVI-br	RI	**	***		***	***	***	**	***	****
PICIFORMES												
Picidae												
Eurasian Wryneck	<i>Jynx torquilla</i>	SUVI-br, PAMI	RSS								*	
UPUPIFORMES												
Upupidae												
Common Hoopoe	<i>Upupa epops</i>	SUVI-br, PAMI	RSS, AF, GR	***	**	**		**	**	****	***	***
CORACIIFORMES												
Alcedinidae												
Common Kingfisher	<i>Alcedo atthis</i>	SUVI-nb	RI					**	**	**	**	**
CUCULIFORMES												
Cuculidae												
Eurasian Cuckoo	<i>Cuculus canorus</i>	PAMI	GR, TR					*		*	*	
Asian Koel	<i>Eudynamys scolopacea</i>	PAMI	RSS					*				
APODIFORMES												
Apodidae												
Alpine Swift	<i>Tachymarptis melba</i>	SUVI-?br	AE					*				
Common Swift	<i>Apus apus</i>	SUVI-?br	AE			**				**	**	
Fork-tailed Swift	<i>Apus pacificus</i>	SUVI-nb	AE					*				
STRIGIFORMES												
Strigidae												
Pallid Scops Owl NSL	<i>Otus brucei</i>	PAMI	TR									*
Eurasian Eagle Owl	<i>Bubo bubo</i>	RES	RK					**	**		**	*
Little Owl	<i>Athene noctua</i>	RES	RSS	**	**		**	***	***	**	*	
COLUMBIFORMES												
Columbidae												
Rock Pigeon	<i>Columba livia</i>	RES	RK, AF, UR		***	***	**	***		***	****	
Hill Pigeon	<i>Columba rupestris</i>	RES	RK, AF	**	***	***	***	***	***	***	***	***
Snow Pigeon	<i>Columba leuconota</i>	RES	RS, AF, RSS	**	**	***					*	
European Turtle Dove	<i>Streptopelia turtur</i>	SUVI-?br, PAMI	TR									*
Oriental Turtle Dove	<i>Streptopelia orientalis</i>	RES	TR		***	****	**	***		***	***	*
Laughing Dove	<i>Streptopelia senegalensis</i>	PAMI	RSS, TR									*
GRUIFORMES												
Gruidae												
Black-necked Crane	<i>Grus nigricollis</i>	SUVI-br	MA, LA, RI		**		**	**	**	***	**	**
Rallidae												
Baillon's Crane	<i>Porzana pusilla</i>	PAMI	MA							**	**	*
Common Moorhen	<i>Gallinula chloropus</i>	PAMI	MA			*					***	*
Common Coot	<i>Fulica atra</i>	SUVI-?br	MA, LA			**	***	**		***	****	
CICONIIFORMES												
Pteroclididae												
Tibetan Sandgrouse	<i>Syrhaptes tibetanus</i>	RES	RSS, GR	**			**	**	***	***		**
Scolopacidae												

Name	Scientific Name	Status	Habitat	1994	1995	1996	1996	1997	1997	1997	1997	1997
				Sep.	Jun.	May	Jun.	Jun.	Jul.	Aug.	Sep.	Oct.
				AD	ABDEGI	AKL	C-EGM-O	A-E	C-E	AD-G	ACDHI	BE
Pintail Snipe	<i>Gallinago stemura</i>	PAMI	MA	**							*	
Common Snipe	<i>Gallinago gallinago</i>	PAMI	MA								***	*** **
Black-tailed Godwit	<i>Limosa limosa</i>	PAMI	MA							*	*	
Whimbrel	<i>Numenius phaeopus</i>	PAMI	MA, GR							*		
Eurasian Curlew	<i>Numenius arquata</i>	PAMI	MA, GR	**						**	**	
Common Redshank	<i>Tringa totanus</i>	SUVI-br	MA	***	***		***	***	***	***	***	*** **
Common Greenshank	<i>Tringa nebularia</i>	PAMI	MA	*						*		
Green Sandpiper	<i>Tringa ochropus</i>	SUVI-?br	MA	***				***	***	***	***	**
Wood Sandpiper	<i>Tringa glareola</i>	PAMI	MA		**	*		**	**	**	**	
Common Sandpiper	<i>Actitis hypoleucos</i>	PAMI	MA						***	**		
Little Stint	<i>Calidris minuta</i>	PAMI	MA								**	**
Temminck's Stint	<i>Calidris temminckii</i>	PAMI	MA			*		*		***	***	
Dunlin NSL	<i>Calidris alpina</i>	PAMI	MA									*
Curlew Sandpiper	<i>Calidris ferruginea</i>	PAMI	MA							*	*	
Ruff	<i>Philonachus pugnax</i>	PAMI	MA, GR									*
Charadriidae												
Ibisbill	<i>Ibidorhyncha struthersii</i>	SUVI-br, RES	RI		**	**		*		*	*	
Black-winged Stilt	<i>Himantopus himantopus</i>	PAMI	MA, RI	**		*			**	**	***	
Pacific Golden Plover	<i>Pluvialis fulva</i>	PAMI	MA, GR								*	*
Little Ringed Plover	<i>Charadrius dubius</i>	SUVI-?br	MA			*		**				
Lesser Sand Plover	<i>Charadrius mongolus</i>	SUVI-br	RSS, MA	****	***		***	***	***	****	**	
Glareolidae												
Collared Pratincole	<i>Glareola pratincola</i>	PAMI								*		
Laridae												
Parasitic Jaeger NSL	<i>Stercorarius parasiticus</i>	PAMI	AE									
Heuglin's Gull	<i>Larus heuglini</i>	PAMI	RI	*								*
Pallas's Gull	<i>Larus ichthyæus</i>	PAMI	RI	**							**	**
Brown-headed Gull	<i>Larus brunicephalus</i>	SUVI-br	RI, LA	***	***	**	***	***	***	***	***	**
Black-headed Gull	<i>Larus ridibundus</i>	PAMI	RI, LA								**	**
Little Gull	<i>Larus minutus</i>	PAMI	RI, LA		*							
Common Tern	<i>Sterna hirundo</i>	SUVI-br	RI, LA	**	***	**	***	***	***	***	***	**
Little Tern	<i>Sterna albifrons</i>	PAMI	RI, LA		*							
Whiskered Tern	<i>Chlidonias hybridus</i>	SUVI-?br	RI, LA									*
White-winged Tern	<i>Chlidonias leucopterus</i>	PAMI	RI, LA		*							
Accipitridae												
Black Kite	<i>Milvus migrans</i>	SUVI-br	AE, TR	**		**		**			***	**
Lammergeier	<i>Gypaetus barbatus</i>	RES	RK, AE			**	**	**		*		**
Himalayan Griffon	<i>Gyps himalayensis</i>	RES	RK, AE	*			*			*	**	**
Eurasian Marsh Harrier	<i>Circus aeruginosus</i>	PAMI	MA, AE	***			*			***	**	
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	SUVI-br	TR, RSS	*			*					*
Northern Goshawk	<i>Accipiter gentilis</i>	PAMI	AE	*								
Upland Buzzard NSL	<i>Buteo hemilasius</i>	SUVI-br	RK, AE					*				
Long-legged Buzzard	<i>Buteo rufinus</i>	SUVI-nb	RSS, GR					**	**	*		
Greater Spotted Eagle NSL	<i>Aquila clanga</i>	PAMI	RK, AE							*		
Golden Eagle	<i>Aquila chrysaetos</i>	RES	AE, RK	*	**	*	**	***	**	**	*	*
Falconidae												
Common Kestrel	<i>Falco tinnunculus</i>	SUVI-br	AE, RSS	**	**	**	**	***	***	***	***	***
Eurasian Hobby	<i>Falco subbuteo</i>	SUVI-br	AE, TR		**	**	*	**				*
Peregrine Falcon	<i>Falco peregrinus</i>	PAMI	AE									*
Laggar Falcon	<i>Falco jugger</i>	PAMI	RK, AE						*			
Podicipedidae												
Great Crested Grebe	<i>Podiceps cristatus</i>	SUVI-br	LA	***	***		***	***	***	***	***	
Ardeidae												
Grey Heron	<i>Ardea cinerea</i>	PAMI	MA, LA, RI	**	*			**			***	**
Cattle Egret NSL	<i>Bubulcus ibis</i>	PAMI	MA		*							
Indian Pond Heron	<i>Ardeola grayii</i>	PAMI	MA								**	
Ciconiidae												
Black Stork	<i>Ciconia nigra</i>	PAMI	GR, MA				*					
PASSERIFORMES												
Laniidae												
Rufous-tailed Shrike	<i>Lanius isabellinus</i>	PAMI	BU								*	*
Long-tailed Shrike	<i>Lanius schach</i>	SUVI-br	TR, BU					**		*	*	*
Grey-backed Shrike	<i>Lanius tephronotus</i>	SUVI-br	TR, BU		**	**	*	**		**		
Corvidae												
Black-billed Magpie	<i>Pica pica</i>	RES	TR, UR	***	****	***	***	***		***	***	***

Name	Scientific Name	Status	Habitat	1994	1995	1996	1996	1997	1997	1997	1997	1997
				Sep.	Jun.	May	Jun.	Jun.	Jul.	Aug.	Sep.	Oct.
				AD	ABDEGI	AKL	C-EGM-O	A-E	C-E	AD-G	ACDHI	BE
Hume's Groundpecker	<i>Pseudopodoces humilis</i>	SUVI-br	RSS				**			**		
Red-billed Chough	<i>Pyrrhonorax pyrrhonorax</i>	RES	RK, AE, AF		***	***	***	***	***	***	***	***
Yellow-billed Chough	<i>Pyrrhonorax graculus</i>	RES	RK, AE, AF			***				**	***	
Carrion Crow	<i>Corvus corone</i>	RES	TR, AF, UR					**		**	**	
Large-billed Crow	<i>Corvus macrorhynchos</i>	RES	TR, AF, UR		***	***	**	***		***	***	
Common Raven	<i>Corvus corax</i>	RES	RK, UR	**	***		***	***	***	***	***	***
Eurasian Golden Oriole	<i>Oriolus oriolus</i>	SUVI-br	TR, BU		**	**		**		*	**	
Black Drongo NSL	<i>Dicrurus macrocercus</i>	SUVI-nb, PAMI	TR, AE						*			*
Cinclidae												
White-throated Dipper	<i>Cinclus cinclus</i>	RES	RI	X	**	**	**	**	***			
Brown Dipper	<i>Cinclus pallasii</i>	RES	RI								***	
Muscicapidae												
Rufous-tailed Rock Thrush	<i>Monticola saxatilis</i>	PAMI	BU, RSS								**	
Blue Rock Thrush	<i>Monticola solitarius</i>	SUVI-br	RSS	X		**	*	**	**	*	***	
Blue Whistling Thrush	<i>Myophonus caeruleus</i>	SUVI-?br	RI, BU				*	**				
Tickell's Thrush	<i>Turdus unicolor</i>	PAMI	MA, GR					**				**
Eurasian Blackbird	<i>Turdus merula</i>	PAMI	GR, MA, RK									*
Dark-throated Thrush	<i>Turdus ruficollis</i>	WIVI	GR, MA									*
Spotted Flycatcher	<i>Muscicapa striata</i>	SUVI-?br	BU, TR								**	
Dark-sided Flycatcher NSL	<i>Muscicapa sibirica</i>	PAMI	BU, TR								*	
Rusty-tailed Flycatcher NSL	<i>Muscicapa ruficauda</i>	unknown	TR			*						
White-tailed Rubythroat	<i>Luscinia pectoralis</i>	SUVI-br	BU				**	**	**	*	**	
Bluethroat	<i>Luscinia svecica</i>	SUVI-br	BU		****	***		**		***	***	***
Black Redstart	<i>Phoenicurus ochruros</i>	SUVI-br	BY, RK, RSS	**	***	***	***	***	***	***	****	**
White-winged Redstart	<i>Phoenicurus erythrogaster</i>	RES	RSS, GR, BU	**	*		**	*			***	***
White-capped Water Redstart	<i>Chaimarrornis leucocephalus</i>	SUVI-?br	RI, BU					*		**		
Grandala	<i>Grandala coelicolor</i>	unknown	RK			*						
Common Stonechat	<i>Saxicola torquata</i>	PAMI	BU								**	
Pied Wheatear	<i>Oenanthe pleschanka</i>	PAMI	GR, RSS									**
Desert Wheatear	<i>Oenanthe deserti</i>	SUVI-br	GR, RSS		***		***	***	****	***	***	**
Sturnidae												
Brahminy Starling	<i>Sturnus pagodarum</i>	PAMI	GR									**
Rosy Starling	<i>Sturnus roseus</i>	PAMI	BU						*	**		
Sittidae												
Wallcreeper	<i>Tichodroma muraria</i>	SUVI-br	RK			*					**	
Paridae												
Great Tit	<i>Parus major</i>	RES	TR, UR	***		**		***		***	***	
Hirundinidae												
Sand Martin	<i>Riparia riparia</i>	SUVI-br	RK, AE					***	***	***	**	
Eurasian Crag Martin	<i>Hirundo rupestris</i>	SUVI-br	RK, AE	**	*	**	***	***	***	***	**	***
Barn Swallow	<i>Hirundo rustica</i>	SUVI-br	AE, UR				**	*		***	***	***
Northern House Martin	<i>Delichon urbica</i>	SUVI-br	AE, UR, RK	**		**		***	***	**	**	
Sylviidae												
Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	SUVI-br	BU								**	
White-browed Tit Warbler	<i>Leptopoeile sophiae</i>	SUVI-br	BU								*	
Common Chiffchaff	<i>Phylloscopus collybita</i>	SUVI-br	BU, TR		***	***	***	**		**		
Mountain Chiffchaff	<i>Phylloscopus sindianus</i>	SUVI-br	BU			*		***	***	***	***	
Tickell's Leaf Warbler	<i>Phylloscopus affinis</i>	SUVI-br	BU	**	*		**	***	***	***	**	**
Sulphur-bellied Warbler	<i>Phylloscopus griseolus</i>	SUVI-br	BU, RK								*	
Hume's Warbler	<i>Phylloscopus humei</i>	PAMI	BU, TR								**	
Western Crowned Warbler	<i>Phylloscopus occipitalis</i>	PAMI	BU, TR								*	
Lesser Whitethroat	<i>Sylvia curruca</i>	SUVI-br	BU		***	***		***		***	***	
Alaudidae												
Tibetan Lark	<i>Melanocorypha maxima</i>	SUVI-br	BO					***	***	***		
Greater Short-toed Lark	<i>Calandrella brachydactyla</i>	SUVI-br	GR, BO								**	
Hume's Short-toed Lark	<i>Calandrella acutirostris</i>	SUVI-br	GR, BO		***		***	***	****	****	****	****
Horned Lark	<i>Eremophila alpestris</i>	SUVI-br, RES	GR, RSS	***	***	**	***	***	***	***	****	****
Passeridae												
House Sparrow	<i>Passer domesticus</i>	RES	UR, AF,		**	***	***	***	***	****	***	***
Tibetan Snowfinch	<i>Montifringilla adamsi</i>	RES	RSS, RK, UR		***	***	***	***	****	****	**	**
Plain-backed Snowfinch	<i>Pyrgilauda blanfordi</i>	SUVI-br	RSS, GR	**	**			***	***	***		
Forest Wagtail	<i>Dendronanthus indicus</i>	PAMI	GR, MA					**				
White Wagtail	<i>Motacilla alba</i>	SUVI-br	MA, GR, RI	****	***	***	***	***		***	****	***
Citrine Wagtail	<i>Motacilla citreola</i>	SUVI-br	MA, GR		***	**	***	***	***	***	***	***
Yellow Wagtail	<i>Motacilla flava</i>	SUVI-br	MA	*	*	**					**	

Name	Scientific Name	Status	Habitat	1994	1995	1996	1996	1997	1997	1997	1997	1997
				Sep.	Jun.	May	Jun.	Jun.	Jul.	Aug.	Sep.	Oct.
				AD	ABDEGI	AKL	C-EGM-O	A-E	C-E	AD-G	ACDHI	BE
Grey Wagtail	<i>Motacilla cinerea</i>	SUVI-br	MA		*	**	*	**		**	**	
Water Pipit	<i>Anthus spinoletta</i>	PAMI	MA	*			*					
Tree Pipit	<i>Anthus trivialis</i>	PAMI	MA, GR								**	
Rosy Pipit	<i>Anthus roseatus</i>	PAMI	MA, GR								**	
Alpine Accentor	<i>Prunella collaris</i>	RES	RK, RSS								**	
Robin Accentor	<i>Prunella rubeculoides</i>	RES	RSS, BU	**	***	***	***	***	***	**	***	***
Brown Accentor	<i>Prunella fulvescens</i>	RES	RSS, BU			**	**	***		**	***	***
Fringillidae												
Fire-fronted Serin	<i>Serinus pusillus</i>	RES	TR, RSS	***	***	***	**	****	**	**	***	**
Twite	<i>Carduelis flavirostris</i>	RES	RSS, BU		**		***	***	***	***	***	**
Plain Mountain Finch	<i>Leucosticte nemoricola</i>	RES	BU, RSS				**			***	***	
Brandt's Mountain Finch	<i>Leucosticte brandti</i>	RES	RSS			**	**	**	***	***		
Mongolian Finch	<i>Bucanetes mongolicus</i>	RES	RSS			**		**	**	**		
Common Rosefinch	<i>Carpodacus erythrinus</i>	SUVI-br	BU, TR		**	**	**	***		***	***	
Streaked Rosefinch	<i>Carpodacus rubicilloides</i>	RES	BU		***	**	***	***	***	***	***	***
Great Rosefinch	<i>Carpodacus rubicilla</i>	RES	BU, AF		*		**	**	**		*	
Red-fronted Rosefinch	<i>Carpodacus puniceus</i>	RES	BU				**			**		
Rock Bunting	<i>Emberiza cia</i>	SUVI-br	RSS			**	*	**				
Little Bunting	<i>Emberiza pusilla</i>	PAMI	MA					*				
Red-headed Bunting	<i>Emberiza bruniceps</i>	PAMI	RSS									**

Keys to Check-list**Surveyed Areas:**

A	Indus valley (Rizong-Upshi)	3000-3600 m
B	Indus valley (Upshi-Nyoma)	3600-4100 m
C	Mahe Bridge - Sumdo	4100-4300 m
D	Tso-Kar plains	4610 m
E	Lalapari-Hanley	4280-4400 m
F	Chumur	4400 m
G	Nurbo-Sumdo / Tsomoriri	4550 m
H	Nubra valley (Hundar-Diskit-Panamik)	3100-3300 m
I	Yoye-Tso	4700 m
K	Rumbak valley (Zinchan-Rumbak)	3400-4000 m
L	Ganda-La (Jurutse - Ganda-La)	4200-5000 m
M	Rizong (Rizong-Ulle)	3200-4500 m
N	Chang-La	4500-5550 m
O	Tangtse - Chushul	4500 m

Habitat types

AE	aerial
LA	lakes / ponds
RI	rivers
MA	marsh, swamps, river and lake-side mudflats
BO	bogs
GR	grasslands
AF	agricultural fields
BU	bushes, thickets
TR	tree plantations, orchards
UR	urban / semi-urban areas
RK	rocks / boulders
RSS	rocky, sandy shores

Abundance of Species:

*	rare (1-3) sightings
**	occasional (4-10 sightings)
***	common (generally regularly seen)
****	abundant
X	sighting, but no abundance measure
NSL	new record for Ladakh

Status:

RES	resident
SUVI- br	summer visitor, breeding
SUVI- nb	summer visitor, non-breeding
WIVI	winter visitor
PAMI	passage migrant